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Fig. 1

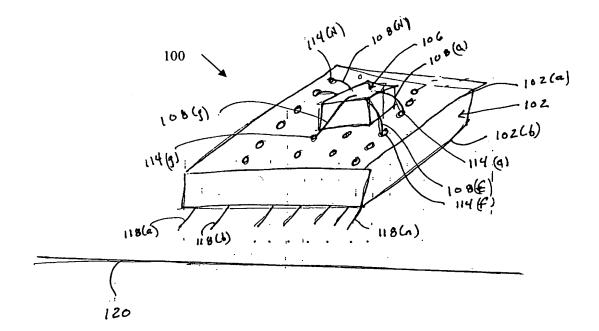


Fig. 2

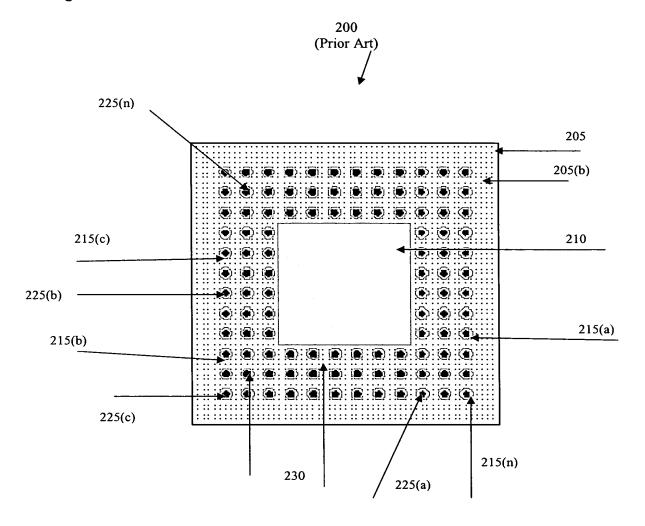


Fig. 3

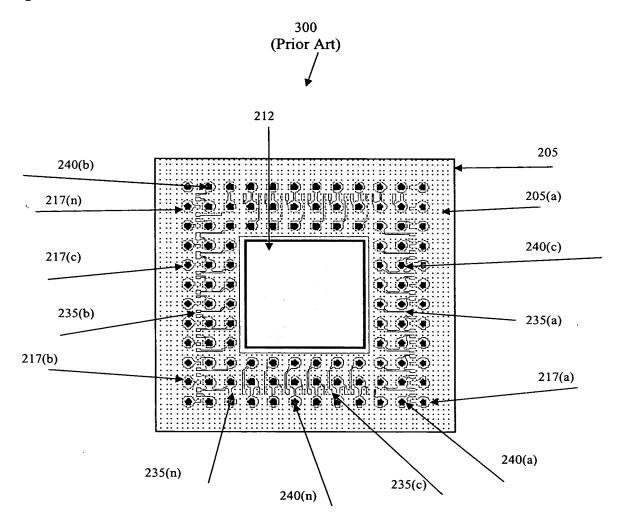


Fig. 4

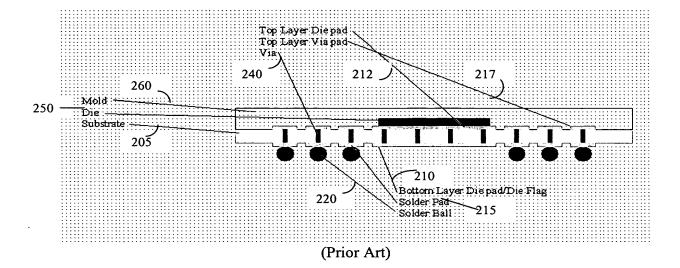


Fig. 5A

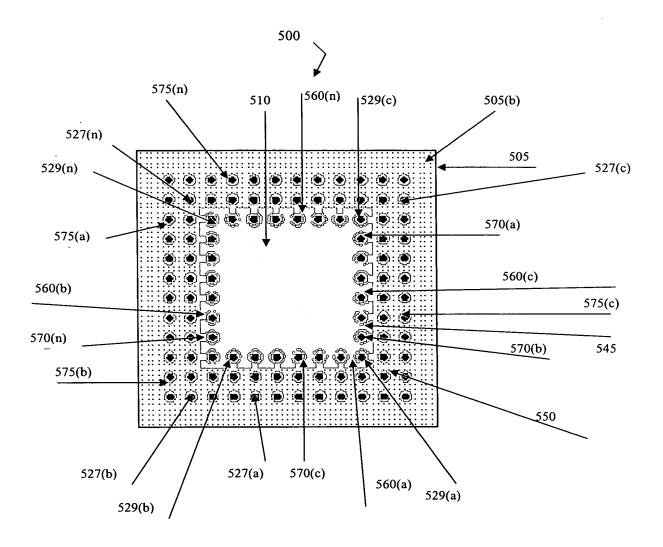


Fig. 5B

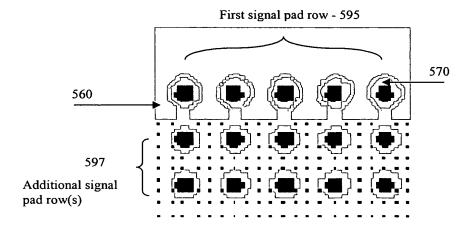


Fig. 5C

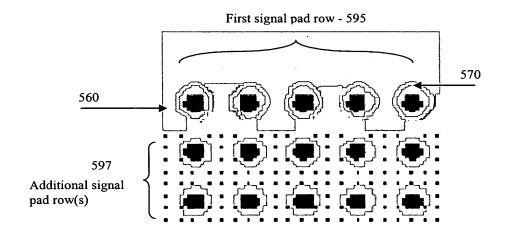


Fig. 6

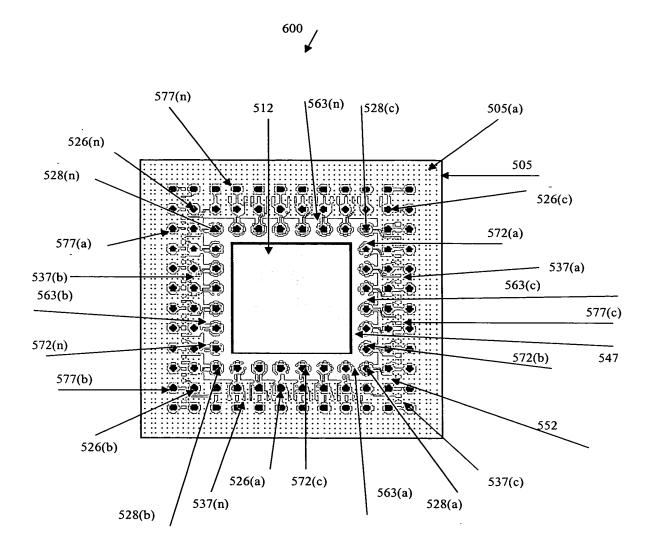


Fig. 7

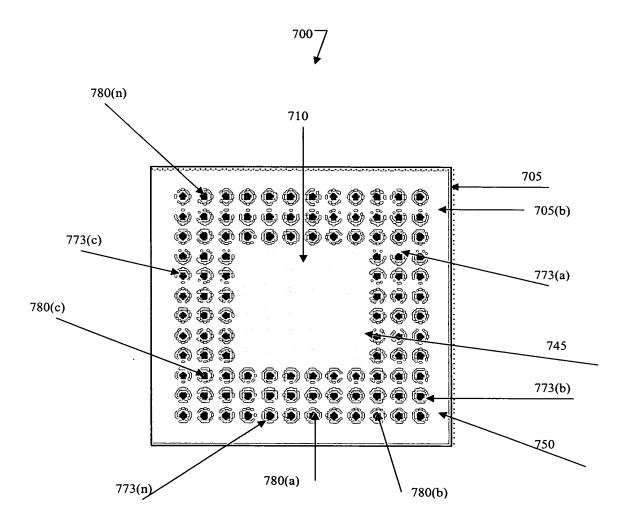
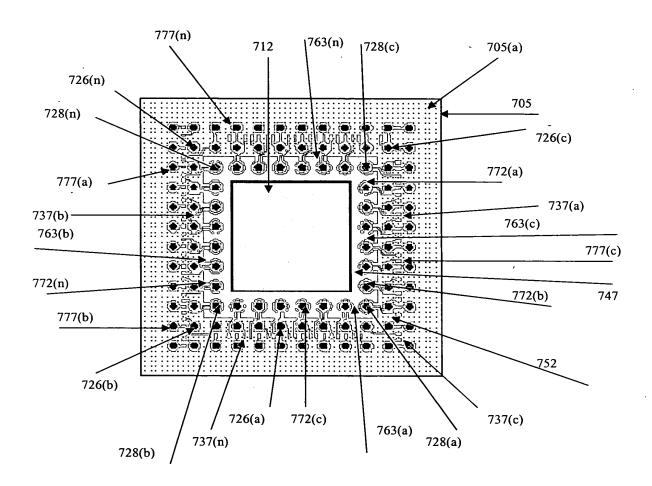
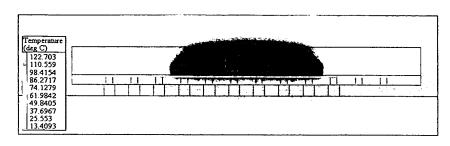


Fig. 8





1. Reference, normal design:



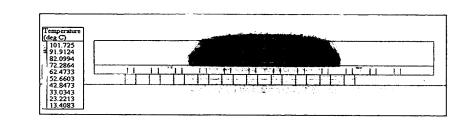
2. Enhanced design, top and bottom thermal fingers:

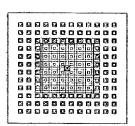
~ 15 % thermal performance decrease in package level

1020

1010

3. Enhanced design, top and bottom thermal fingers + thermal vias:





- ~ 17 % thermal performance decrease in package level
- 4. Enhanced design, top thermal fingers and bottom net + vias:

Temperature (deg C)

79.3609
72.033
64.7051
57.3773
50.0494
42.7215
35.3936
28.0638
20.7379
13.41

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~ 35 % thermal performance decrease in package level

1040

1030